

GPO 2009 OMB NO. 1115-0001

**What is Claimed Is:**

- 1        1. A digital file forming a contract comprising:
  - 2              a header package having rules defining sealed packages produced by a sealing party;
  - 4              a body containing at least a portion of the content of the contract; and
  - 5              a validating signature generated from said rules and said body according to a first key belonging to a validating party; and
  - 7              a sealing signature generated from said header package and said sealed packages according to a second key belonging to said sealing party.
- 1        2. A digital file forming a contract according to claim 1 wherein said header package further comprises a unique header identifying a type of said sealed package and wherein said validating signature is generated from said rules, said body and said header.
- 1        3. A digital file forming a contract according to claim 1 wherein said sealed package comprises a unique number generated by said sealing party and said sealing signature is generated from said header package, any of said sealed packages and said unique number.
- 1        4. A digital file according to claim 1 wherein said rules define one or more unsealed packages to be included in said sealed package, said body comprises a HTML file and one of the unsealed packages defined in the rules contains data for a field in the HTML file.
- 1        5. A digital file according to claim 1 wherein said rules comprise a URL corresponding to the location for which each sealed package to be included in the contract

3 can be obtained.

1           6. A digital contract according to claim 5 wherein said URL is a CGI script  
2 for commanding a remote server to generate said sealed package.

1           7. A digital contract according to claim 5 wherein said URL identifies the  
2 location of said sealed package.

1           8. A contract management apparatus for validating a digital file constituting a  
2 contract, said digital file having a header package which includes rules defining sealed  
3 packages, a body containing at least a portion of the contract, and a validating signature,  
4 comprising:

5                 means for reading said rules and for identifying a validating party and a  
6 sealing party which created a sealed file of said contract;

7                 first means for obtaining a first key belonging to said validating party  
8 cooperable with said validating signature generated from said rules and body to validate  
9 said header package;

10               second means for obtaining a second key belonging to said sealing party  
11 cooperable with said sealing signature to validate said contract; and

12               means for iteratively validating any sealed packages contained in said  
13 contract using said second key and sealing signature.

1           9. A contract management apparatus as claimed in claim 8 wherein said  
2 iterative validating means returns any data stored in said sealed packages.

1           10. The contract management apparatus of claim 9 further comprising means  
2 for displaying said body contents and said returned data.

- 1        11. A contract management apparatus for generating a digital file constituting
- 2        a contract comprising:
  - 3            means for obtaining a header package for said contract;
  - 4            means for reading rules defining sealed data packages, and for identifying
  - 5            a sealing party and any sealed packages to be included in said contract;
  - 6            means for obtaining said identified sealed packages;
  - 7            means for generating a sealing signature from said header package and any
  - 8            of said sealed packages according to a first key belonging to said sealing party; and
  - 9            means for assembling said header package, sealed packages and said
  - 10          sealing signature into said digital file constituting a contract.
- 1        12. A contract management apparatus comprising:
  - 2            means for accepting and securely storing data files constituting contracts in
  - 3            an encrypted package database;
  - 4            means for backing-up said package database;
  - 5            a navigator tool adapted to allow a user access to said stored data files
  - 6            constituting said contracts;
  - 7            means, responsive to a request for an encrypted package from said data
  - 8            base, for transmitting said package to an external entity;
  - 9            means for informing users of data files having expiring contracts in said
  - 10          data base; and
  - 11          means for deleting contracts from said data base.
- 1        13. The contract management apparatus of claim 8, including one of a
- 2        smartcard, a personal digital assistant, a personal computer, a terminal or an embedded
- 3        system.

1        14. A computer product for storing instructions which are executed by a  
2 computer to validate a digital file having a header package which includes rules defining  
3 sealed packages, a body containing at least a portion of a contract and a validating  
4 signature, comprising:

5              reading said digital file and identifying a validating party and a sealing  
6 party which created a sealed package of said contract;

7              deriving a first key belonging to a validating party;

8              validating said header package using said first key and said validating  
9 signature;

10             deriving a second key belonging to said sealing party;

11             deriving a sealing signature from said header package; and

12             validating said digital file using said second key and said sealing signature.

1        15. The computer product according to claim 14, further comprising  
2 instructions for deriving said sealing signature from a unique number contained in said  
3 header package.

1        16. A computer product storing instructions for execution on a computer to  
2 perform a process to validate a digital file constituting a contract comprising the steps of:

3              unzipping a header package in said digital file and reading rules contained  
4 in said header package;

5              determining from said rules keys to validate said header package and a  
6 sealed package of said digital file constituting said contract; and

7              validating each sealed package in said digital file using said keys.

1        17. The computer product storing instructions for execution on a computer

2 according to claim 16, further comprising instructions for performing the additional steps  
3 of obtaining said keys from a network server identified by said rules.

1           18. A computer product for storing instructions for a computer to execute the  
2 process comprising the steps of:

3                 storing rules to describe a data package;  
4                 creating from said rules a data package containing a digital data file;  
5                 merging said rules and said data package into a merged file;  
6                 creating a package validity signature from said merged file to prevent  
7 unauthorized use of said digital file; and  
8                 generating a unique number identifying said digital file;  
9                 merging said package validity signature, said merged file and said unique  
10 number;  
11                 creating a sealing signature from said merged files; and  
12                 sealing said merged files with said sealing signature to produce a sealed  
13 package.

1           19. A computer product according to claim 18 wherein said rules comprises a  
2 plurality of elements which point to a location on said computer containing a required  
3 package.

1           20. The computer product according to claim 19 wherein said rules define a  
2 sealing signature for said sealed package.

1           21. The computer product according to claim 18 wherein said merged files are  
2 compressed as a single file.